

Appl. No. : 10/520,444
Filed : January 6, 2005

REMARKS

Claims 1 and 2 have been amended. Support for the amendments can be found in the specification page 10 line 9 through page 11 line 2, page 12 lines 7-13, page 15 lines 28-31, for example. Claims 7-9 have been canceled without prejudice. New Claims 17-18 have been added. Support for the new claims can be found in the specification page 10 line 15 through page 11 line 2, for example.

No new matter has been added. Applicant respectfully requests entry of the amendments and reconsideration of the application in view of the amendments and the following remarks.

Claim Rejections Under 35 U.S.C. § 112

Claims 1-16 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The terminology “and/or” in Claims 1-2 has been amended to the format “A, B, or both of the foregoing”. Applicant respectfully requests withdrawal of the rejection.

Claim Rejections Under 35 U.S.C. § 102

Claims 1, 5, 6, and 8-10 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Taylor (US4,013,566).

Claim 1 has been amended to include the following limitations among others.

wherein the amine compound is one or more members selected from the group consisting of hydrazide compounds, naphthylamine compounds, diphenylamine compounds, and p-phenylenediamine compounds, wherein the hydrazide compound is selected from the group consisting of lauric acid hydrazide, salicylic acid hydrazide, formhydrazide, acetohydrazide, propionic acid hydrazide, p-hydroxybenzoic acid hydrazide, naphthoic acid hydrazide, 3-hydroxy-2-naphthoic acid hydrazide, a dihydrazide compound, and a polyhydrazide compound,

wherein the thermally conductive material is one or more members selected from the group consisting of acetylene black, ketjen black, boron nitride, aluminum nitride, silicon nitride, boron carbide, aluminum oxide, magnesium oxide, and iron.

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The carbon black disclosed in Taylor is not included in the thermally conductive material recited in Claim 1. Since each and every element in Claim 1 is not disclosed in Taylor, Claim 1 cannot be anticipated by the reference.

The Office Action states that Claim 9 is a product-by-process claim. Claim 9 has been canceled without prejudice.

With regard to Claims 5, 6, 8 and 10, Claim 8 has been canceled without prejudice and Claims 5, 6 and 10 depend from Claim 1. Thus, they also cannot be anticipated by the reference. Applicant respectfully requests withdrawal of the rejections.

Claim Rejection Under 35 U.S.C. § 103

Claims 1-16 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over a single reference and various combinations selected from Taylor, Nikaido (US5,300,858), Kawaguchi (US6,673,436), Kawaguchi (JP2001-354780), and Shigeta (US5,078,909).

Upon amending Claim 1 as described, none of the above cited references disclose or suggest either the amine compound or the thermally conductive material recited in Claim 1. Taylor discloses the use of carbon black in order to increase the structural integrity of the material. The two Kawaguchi references disclose the use of aluminum powder in order to increase structural integrity. Shigeta discloses 4,4'-oxybenzene-sulfonylhydrazine, an amine compound, for use as a foaming agent. These compounds are no longer included in Claim 1.

Further, the disclosure of the above compounds in the cited references would not even suggest the presently claimed invention. These compounds are used for very different reasons from those of the claimed invention. In the claimed invention, the amine compound prevents the occurrence of dark spots and suppresses the growth of any dark spots (page 9, lines 19-22). The thermally conductive material of the present invention releases heat and extends the service life of a device (page 12, lines 1-6). The presently recited amine compounds and thermally conductive materials were selected for these properties. Thus, the cited references' disclosure of other amine compounds and thermally conductive materials for unrelated purposes would in no way suggest the particular amine compounds and thermally conductive materials selected for the foregoing properties.

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Furthermore, Claim 1 now includes the limitation of "a moisture-absorbent formed body in the form of a sheet". The features provided by the selected amine compounds and thermally conductive materials are particularly beneficial when the moisture-absorbent formed body of the present invention is in the form of a sheet. The moisture-absorbent formed body, when incorporated in an organic electroluminescent device, is easily disposed within a sealed atmosphere of the device. Thus, the moisture-absorbent formed body is easily brought into in direct or indirect contact with both the inner surface of the sealed container and an electrode (Fig.1, page 19, lines 1-7, and Examples). Further, the sheet-formed moisture-absorbent body can constitute multilayer structure with a cushioning filler sheet, for example (page 19 line 22 through page 20 line 5).

However, both dark spots and heat exchange are particular concerns when the moisture-absorbent formed body is in the form of a sheet. Thus, the combination of the selected amine compounds and thermally conductive materials with the body being in the form of a sheet provides unexpected advantages, which could in no way be predicted by the cited prior art.

For at least the above reasons, Claim 1 cannot be obvious over the references. Claims 7-9 have been canceled without prejudice. Claims 2-6 and 10-16 depend directly or indirectly from Claim 1, and thus they also cannot be obvious over Claim 1. Applicant respectfully requests withdrawal of the rejections.

New Claims

New Claims 16 and 17 have been added.

Claim 16 recites a further limitation of the dihydrazide compound. Claim 17 recites further limitation of polyhydrazide.

None of the compounds recited in Claims 16 and 17 are disclosed in the references. Thus, Claims 16 and 17 are allowable.

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CONCLUSION

In light of the Applicant's amendments to the claims and the foregoing Remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any remaining concerns which might prevent the prompt allowance of the application, the Examiner is respectfully invited to contact the undersigned at the telephone number appearing below.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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